ANALYTICA CHIMICA ACTA

International journal devoted to all branches of analytical chemistry

(Abstracted, Indexed in: Anal. Abstr.; Biol. Abstr.; Chem. Abstr.; Curr. Contents Phys. Chem. Earth Sci.; Life Sci.; Index Med.; Mass Spectrom. Bull.; Sci. Citation Index; Excerpta Med.)

VOL. 205 CONTENTS FEBRUARY 15, 1988

Special issue on Quantitative Luminescence Spectrometry in Biomedical Sciences, Proceedings of the 2nd International Symposium held at Gent, Belgium, May 11–14, 1987

Foreword by W.R.G. Baeyens (Gent, Belgium) ix

Fibre-optic oxygen sensor with the fluorescence decay time as the information carrier
M.E. Lippitsch, J. Pusterhofer, M.J.P. Leiner and O.S. Wolfbeis (Graz, Austria) 1

High-performance liquid chromatography with photochemical fluorimetric detection of tryptophan based on 4-fluoro-7-nitrobenzo-2-oxa-1,3-diazole. Total protein amino acid analysis
K. Imai, E. Ueda and T. Toyo'oka (Tokyo, Japan) 7

Laser-induced fluorescence detection in liquid chromatography after preliminary derivatization of carboxylic acid and primary amino groups
C.M.B. van den Beld, H. Lingeman, G.J. van Ringen, U.R. Tjaden and J. van der Greef (Leiden, The Netherlands) 15

Simultaneous determination of thiols and disulfides by high-performance liquid chromatography with fluorescence detection
T. Toyo'oka, S. Uchiyama, Y. Saito and K. Imai (Tokyo, Japan) 29

Reversed-phase high-performance liquid chromatography of thiol–bimane derivatives
W.R.G. Baeyens, G. van der Weken and P. de Moerloose (Gent, Belgium) 43

Direct coupling of intracerebral dialysis with flow injection analysis based on enzymatic/fluorescence detection of lactic acid
W.G. Kuhr and J. Korf (Groningen, The Netherlands) 53

Determination of partition and diffusion of lindane in unilamellar L-α-dimyristoylphosphatidylcholine vesicles by fluorescence quenching of the intramembrane probe methyl 11-(*N*-carbazolyl) undecanoate
D. Daems, N. Boens and F.C. de Schryver (Heverlee, Belgium) 61

Terbium luminescence studies of binding of adriamycin and cisplatin to tumorigenic cells
R.G. Canada (Washington, DC, U.S.A.) 77

Enzymatic synthesis and use of new fluorigenic substrates for a novel approach to the study of bacterial peptidoglycan degradation
D.A. Byers and D.H. Leaback (Stanmore, Gt. Britain) 89

Apparatus and procedures for semi-automated, rapid, multiple fluorigenic estimations of enzyme activities on microlitre volumes of human plasma
S. Creme and D.H. Leaback (Stanmore, Gt. Britain) 97

Study of the luminescence properties of a new series of quinolizinium salts and their interaction with DNA
M.A. Martin, B. del Castillo (Madrid, Spain) and D.A. Lerner (Montpellier, France) 105

Influence of micellar media on the fluorescence of various benzo- and methyl-quinolizinium salts
M.A. Martin , B. del Castillo (Madrid, Spain), D.A. Lerner (Montpellier, France), J. Ezquerra and J. Alvarez-Builla (Madrid, Spain) 117

Polarity effect on fluorescence of styryl derivatives of quinolizinium salts in micellar media
P. Martin, M.A. Martin, B. del Castillo and I. Cayre (Madrid, Spain) 129

(Continued overleaf)

(Contents continued)

Enhanced fluorimetric determination of procaine in pharmaceutical preparations by aqueous β-cyclodextrin inclusion and non-aqueous competitive action
F. Garcia Sanchez, A.L. Ramos Rubio, C. Cruces Blanco, M. Hernandez Lopez, J.C. Marquez Gomez and C. Carnero (Málaga, Spain) 139
Three-dimensional synchronous fluorimetric determination of indole-type auxins after derivatization with *o*-phthalaldehyde
F. Garcia Sanchez, C. Cruces Blanco, A.L. Ramos Rubio, M. Hernandez Lopez, J.C. Marquez Gomez and C. Carnero (Málaga, Spain) 149
Thermal profiles of Förster energy transfer. Preliminary studies of luminescent probes of protein dynamics in transferrin and calmodulin
P.B. O'Hara, K.M. Gorski (Amherst, MA, U.S.A.) and M.A. Rosen (New York, NY, U.S.A.) 161
Procedure for quality control of chemiluminogenic labels
E.H.J.M. Jansen, R.H. van den Berg, R. Both-Miedema, C. Enkelaar-Willemsen and G. Zomer (Bilthoven, The Netherlands) 175
Chemiluminescence assay for choline acetyltransferase in tissue extracts by using immune adsorption on monoclonal antibody
E.J. Menzel, L.R. Walzer, G. Meissl and H. Milliesi (Vienna, Austria) 183
Flow-injection determination of sugars with immobilized enzyme reactors and chemiluminescence detection
C.A. (Koerner) Swindlehurst and T.A. Nieman (Urbana, IL, U.S.A.) 195
Solution kinetics of the degradation of the chemiluminescent reagent bis (2,4-dinitrophenyl)oxalate in water/acetonitrile
R.N. Jennings and A.C. Capomacchia (Athens, GA, U.S.A.) 207
Chemiluminescence immunoassay for estriol in saliva
J. de Boever, W. Ulrix, D. Vanderkerckhove (Gent, Belgium) and F. Kohen (Rehovot, Israel) 215
A comparison of chemiluminescence immunoassay and radioimmunoassay for the detection of nortestosterone residues in meat samples
C.H. van Peteghem and L.J. van Look (Gent, Belgium) 223
Bioluminescence flow system for determination of branched-chain L-amino acids in serum and urine
S. Girotti, A. Roda, M.A. Angellotti, S. Ghini (Bologna, Italy), G. Carrea, R. Bovara (Milan, Italy), S. Piazzi and R. Merighi (Bologna, Italy) 229

Short Communications
A radial-partition fluoroimmunoassay for the detection of hepatitis B surface antigen with the streptavidin/biotin complex
G. de Schrijver, R.J. Wieme, F. D'Haese and D. Deen (Gent, Belgium) 239
Solid-phase chemiluminescence immunoassay for screening of anabolic agents in application sites in slaughtered cattle
R.H. van den Berg, E.H.J.M. Jansen, G. Zomer, C. Enkelaar-Willemsen, C.A. Laan and R.W. Stephany (Bilthoven, The Netherlands) 243
Chemiluminescence immunoassay for oxazepam
G. Zomer, R.H. van den Berg, E.H.J.M. Jansen (Bilthoven, The Netherlands) and T. Roos (Amsterdam, The Netherlands) 249
Determination of serum estradiol by normal-phase high-performance liquid chromatography with peroxyoxalate chemiluminescence detection
O. Nozaki, Y. Ohba (Osaka, Japan) and K. Imai (Tokyo, Japan) 255
Determination of tetracycline by flow injection with chemiluminescence detection
A.A. Alwarthan and A. Townshend (Hull, Great Britain) 261
Optimal labelling of proteins with acridinium ester
G. Zomer, R.H. van den Berg and E.H.J.M. Jansen (Bilthoven, The Netherlands) 267
A comparative study of heavy-atom effects on the room temperature phosphorescence of biologically important purines
M.D. Gaye and J.J. Aaron (Paris, France) 273
Surface analysis of tablets by room-temperature phosphorimetry
W.J. Long, S.Y. Su and H.T. Karnes (Richmond, VA, U.S.A.) 279